

Vaccine Identification Standards Initiative (VISI)
Online Barcode Printing Subcommittee
Meeting Minutes
July 27, 2000
Uniform Code Council (UCC), Lawrenceville, NJ

Attendees: Rick Fox (Fox IV Technologies), Jayne Gilbert (Chiron) , Jim Mundt (Merck), Bruce G. Weniger (CDC), Lori Easterday (Aventis Pasteur), Ron Filipski (Aventis Pasteur), Frank Sharkey (UCC), Mary L. Wilson (UCC), James Chronowski (UCC), John Roberts (UCC)

1. Meeting commenced at 9:00 am. The anti-trust statement was read.
2. Review of VISI web site lead by Frank Sharkey. Scanning of the web site prototypes determined that neither a laser scanner nor an image scanner could scan one of the barcodes from the website (the RSS Limited sample at 4 dots for **Td** vaccine). Discussion resulting from the barcodes on the site included the use of application identifiers (AIs) for multi-dose packaging and the VISI consideration to migrate from the U.P.C. barcode on the carton to the UCC/EAN-128. A strong caution was raised to give industry enough lead time to switch from one to another. There was discussion on the use of the concatenated UCC/EAN-128 (combining national drug code [NDC], expiration date, and lot no. in one wide barcode) versus non-concatenated UCC/EAN-128 (separate barcodes for NDC and for expiration/lot no., each printed separately on the carton). It was determined that participation from the National Wholesale Druggists Association (NWDA) was desirable to provide input on the VISI standards.
3. John Roberts presented "Barcode 101" educational briefing. This was given in response to a question raised in the teleconference from the previous day. The origination of the universal product number (UPN) was explained, including a comparison of HIBCC and UCC data structures.
4. Rick Fox Presentation on Printing and Discussion. His presentation encompassed the current state of printing technology, pending developments and the future.

Rick Fox provided the following label samples:

- RSS Limited/ Composite (3 Dots) 8 ips/300 DPI 10mil
- RSS Limited/ Composite (2 Dots) 8 ips/300 DPI 6.7mil
- RSS Limited/ Composite (3 Dots) 4 ips/600 DPI 5.0mil
- RSS 14 Stacked (5 Dots) 4 ips/600 DPI 8.3mil
- UPC with post printed secondary data

The 4-inch per second (ips) labels were printed on a Zebra Z90Xi with 600 dots per inch (DPI) printhead. The 8-inch per second (ips) labels were printed on a Zebra 170Xi with 300 dots per inch printhead. The speed limitations were a function of the printers used. Other results could be achieved with different printers or future enhancements of the Zebra printers. The label design software used was Codesoft Version 5.04. The bar codes reside in the software as a graphics file and not – at this time – in the printers.

A video of the actual print speed and changeover time(s) was shown. Rick explained how, in this test, print speed is a function of two things – the number of dots per inch in the printhead and the orientation of the bar code as it is printed. For example, 480 labels per min. @ 8 ips/300 DPI will meet the needs of the manufacturers. A printer at 600 dpi could print accurately 4 inches per second. A 300 DPI could print accurately at 8 inches per second. Labels would be pre-printed and wound into rolls and placed on the products by an applicator.

The impact of the orientation of the barcode on the label relative to speed was discussed. A comparison was made between a bar code printed in a picket fence orientation when facing the printer (vertical bars of 1-dimensional component oriented parallel to direction of label movement through printer) and one that was printed in a step ladder orientation (vertical bars of 1-dimensional component oriented perpendicular to direction of label movement through printer). The fastest production and highest quality bar codes are normally achieved in the picket fence orientation.

Another test on the accuracy of thermal transfer printers to add the 2-D variable component on to pre-printed UPC codes found that the 2-D component could be accurately printed and added to a UPC code.

Current and future print technology was discussed at length. Current technology does not allow composite symbology to be printed directly onto cartons. Thermal transfer and ink jet technologies are most likely to succeed in this application. The developing technology of Impulse Jet may help to eliminate this problem in the future.

All the above samples were scanned in the UCC lab with both laser and image scan technology. All samples could be scanned, the smaller dimensions performing at slower scan rates.

5. Formation of Pilot Team and Action Items

The manufactures present, Aventis Pasteur, Chiron, and Merck formed a team with Rick Fox to pilot RSS in vaccine applications. Other manufacturers not in attendance are welcome to participate, too. The focus of the test is technical capability of printers, scanners and suppliers and their ability to print a scannable bar code directly on the vaccine items. UCC is to act as a secretariat and to facilitate this test.

Action Items:

- UCC to provide a modified copy of the RSS Healthcare test plan to the team members for review and feedback.
- Manufacturers will have two weeks to plan and make comments/ revision after initial receipt. At the end of the two-week review period a conference call will take place and the test plan modified to reflect consented upon updates. The manufacturers can send comments via email to the UCC to expedite the process prior to the teleconference.
- The manufacturers will decide which samples of commodities, labels, cartons and the priority of each to be provided to Rick Fox. Rick will print and the UCC will verify and scan. A field test may or may not take place.
- Target for pilot is late September, early October.
- John Roberts will identify a contact name in Europe and a contact from the NWDA to solicit representation and participation from each of these organizations. John will contact SmithKline and Wyeth Lederle to do the same.
- CDC will contact New York and Maryland Health Department to request participation.

6. Meeting adjourned at 1:00 pm